

## C l a i m s

1. Audio processing system (1;5) comprising:
  - at least one audio processing component (11,12,13;51,52,53) with a group of real-time functions (14) for processing audio data and a group of control functions (15) for processing control signals; and
  - at least one processor (16;56,57) providing a first process (20) for executing real-time functions (14) of said at least one audio processing component (11,12,13;51,52,53) using a basically constant processing power and at least one further process (30) for executing control functions (15) of said at least one audio processing component (11,12,13;51,52,53) whenever needed without affecting the processing power employed for said first process (20).
2. Audio processing system (1;5) according to claim 1, wherein said at least one audio processing component (11,12,13;51,52,53) includes a plurality of audio processing components, said audio processing system (1;5) further comprising an audio processing engine (22) for selecting successively one of said audio processing components (11,12,13;51,52,53), said at least one processor (16;56,57) executing real-time functions (14) of the respectively selected audio processing component (11,12,13;51,52,53) in a dedicated part (21) of said first process (20) and

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control functions (15) of the respectively selected audio processing component (11,12,13;51,52,53) in a dedicated part (31) of said at least one further process (30).

3. Audio processing system (1;5) according to claim 1 or 2, wherein said control functions (15) are designed for generating events based on received control signals and for time-stamping said events, when said control functions (15) are executed in said at least one further process (30), wherein said at least one further process (30) is designed for providing said events to said first process (20), and wherein said real-time functions (14) are designed for using said events at a time defined by said time stamps, when said real-time functions (14) are executed in said first process (20).
4. Audio processing system (1) according to one of the preceding claims, wherein said at least one processor is a single processor (16) providing said first process (20) and said at least one further process (30).
5. Audio processing system (5) according to one of claims 1 to 3, wherein said at least one processor comprises a first processor (56) and at least a second processor (57), said first processor (56) providing said first process and said second processor (57) providing at least one of said at least one further process.

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6. Audio processing system (1;5) according to one of the preceding claims, wherein said first process (20) and said at least one further process (30) are execution threads.
7. Method of operating an audio processing system (1;5), which comprises at least one audio processing component (11,12,13;51,52,53) with a group of real-time functions (14) for processing audio data and a group of control functions (15) for processing control signals, said method comprising the steps of:
  - executing said real-time functions (14) of said at least one audio processing component (11,12,13;51,52,53) with a basically constant processing power using a first process (20); and
  - executing said control functions (15) of said at least one audio processing component (11,12,13;51,52,53) whenever needed using at least one further process (30) without affecting the processing power employed for said first process (20).
8. Method according to claim 7, wherein said at least one audio processing component (11,12,13;51,52,53) includes a plurality of audio processing components, said method further comprising selecting successively one of said audio processing components (11,12,13;51,52,53), the real-time functions (14) of the respectively selected audio processing component (11,12,13;51,52,53) being executed in a dedicated part (21) of said first process (20) and the control functions (15) of the respectively selected audio processing component (11,12,13;51,52,53) being

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executed in a dedicated part (31) of said at least one further process (30).

9. Method according to claim 7 or 8, wherein executing said control functions (15) in said at least one further process (30) comprises generating events based on received control signals, time-stamping said events and providing said events to said first process (20), and wherein executing said real-time functions (14) in said first process (20) comprises making use of said events at a time selected based on said time stamps.
10. Software program product comprising a software code for an audio processing component (11,12,13;51,52,53) defining real-time functions (14;54) for processing audio data when said software code is executed by a process of a processor and defining control functions (15;55) for processing control signals when said software code is executed by a process of a processor, said real-time functions (14;54) being defined to be executed by a first process (21) and said control functions (15;55) being defined to be executed by at least one further process (31) of at least one processor (16;56,57), and said real-time functions (14;54) ensuring that a basically constant amount of processing power is taken from said at least one processor (16;56,57) when said real-time functions (14;54) are executed by said first process (21).